UNITED STATES DEPARTMENT OF THE INTERIOR GEOLOGICAL SURVEY Water Resources Division

RECORDS OF WATER LEVEL AND PUMPAGE FOR 1969 IN JOSHUA TREE NATIONAL MONUMENT CALIFORNIA

Prepared in cooperation with the National Park Service

BASIC-DATA COMPILATION

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Ву

G. A. Miller

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Menlo Park, California February 25, 1970



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RECORDS OF WATER LEVEL AND PUMPAGE FOR 1969 IN

JOSHUA TREE NATIONAL MONUMENT, CALIFORNIA

By C. A. Miller

This report, prepared at the request of the National Park
Service, is part of a continuing inventory by the Geological
Survey of general hydrologic conditions at Joshua Tree National
Monument. The report includes water levels in selected observation
wells in the monument for spring and autumn 1969 and pumpage data
from Kaiser Steel Corp. for its wells in Pinto Basin during 1969.
Data on pumpage prior to 1969 and on water levels prior to those
shown are published in U.S. Geological Survey Water-Supply Paper
1475-0 and in previous annual reports to the National Park Service.



Hydrographs of observation wells in the monument (fig. 2) show a general, irregular, decline in ground-water level of from less than 10 feet to more than 75 feet during the period of record, 1958-69.

There is little correlation between the magnitude of water-level decline and pumping; for example, there is little or no pumping in the area near well 1S/7E-27R1 (Willets well), where the largest decline in water level occurred. Most of the decline is probably due to the relative dryness of the period. Increased precipitation during the last few years caused the water level in some wells to rise, but not to 1958 levels.

The large storms that occurred in part of coastal southern California during January and February 1969 did not reach the monument area.



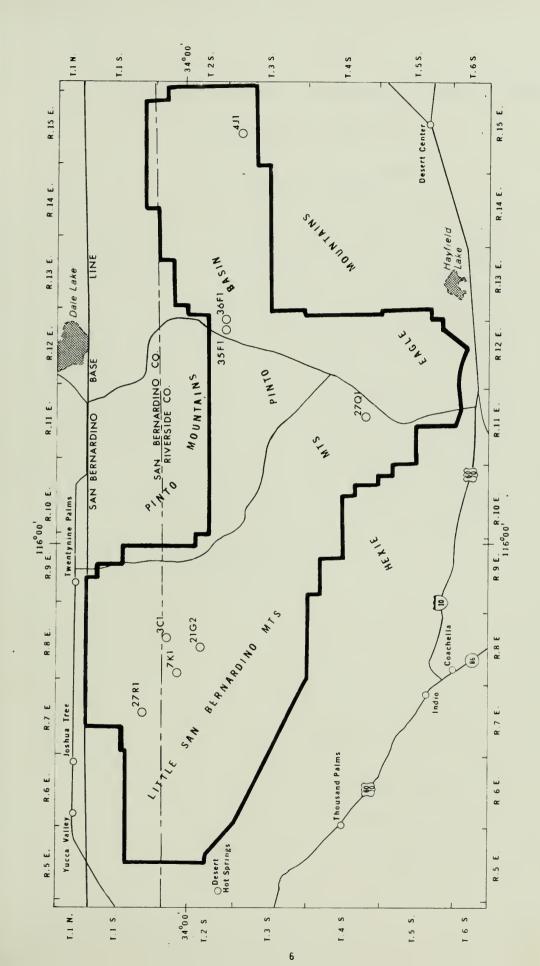


FIGURE 1.--Map of Joshua Tree National Monument showing location of observation wells.



TABLE 1.--Pumpage from wells in Pinto Basin by Kaiser Steel Corp.,

for the calendar year 1969

[Metered in thousands of gallons by Kaiser Steel Corp.]

January	54,641
February	50,548
March	55,031
April	85,451
•	· ·
May	120,986
June	121,639
July	97,699
August	91,414
	72,12
September	93,245
October	79,987
November	47,981
December	50,846
December	50,040
Total (thousands of gallons)	949,000
Total ² (acre-feet)	2,900
TOTAL (acre-reer)	2,900

¹Rounded to three significant figures.
²Rounded to two significant figures.

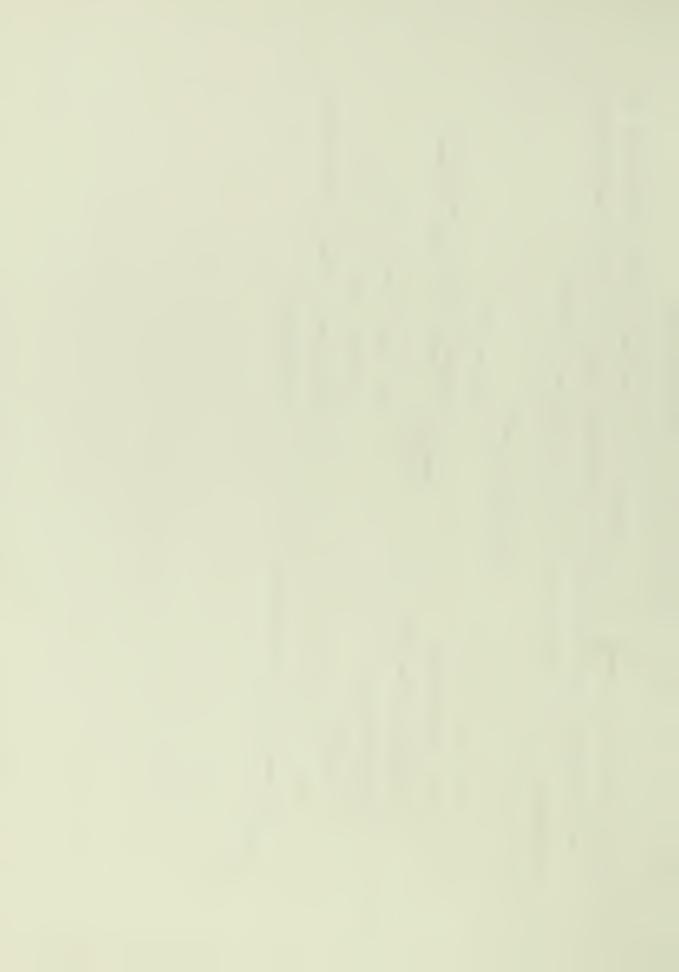


Table 2. -- Ground-water levels in observation wells

Depths of wells given in whole feet were reported by owners, drillers, or others; depths given in feet and tenths of a foot were measured below land-surface datum by the U.S. Geological Survey. Measurements are in feet below or above (+) the described point of reference.

Standardized footnotes

n. lape measurement.	i. Affected by outside influence (wind, atmospheric pressure, ocean tides, railroad	s).	j. Water level below sea level.	k. Measurement from recorder chart.	m. Obstruction in well above water surface.	n. No measurement.
well being pumped.	b. Well pumped recently.	Nearby well being pumped. trains).	Nearby well pumped recently.	Estimated.	Dry.	Measurement by outside agency or
ਲੈ	ъ.	ບໍ	ซื	e •	•	g. person.



COUNTY

CALIFORNIA

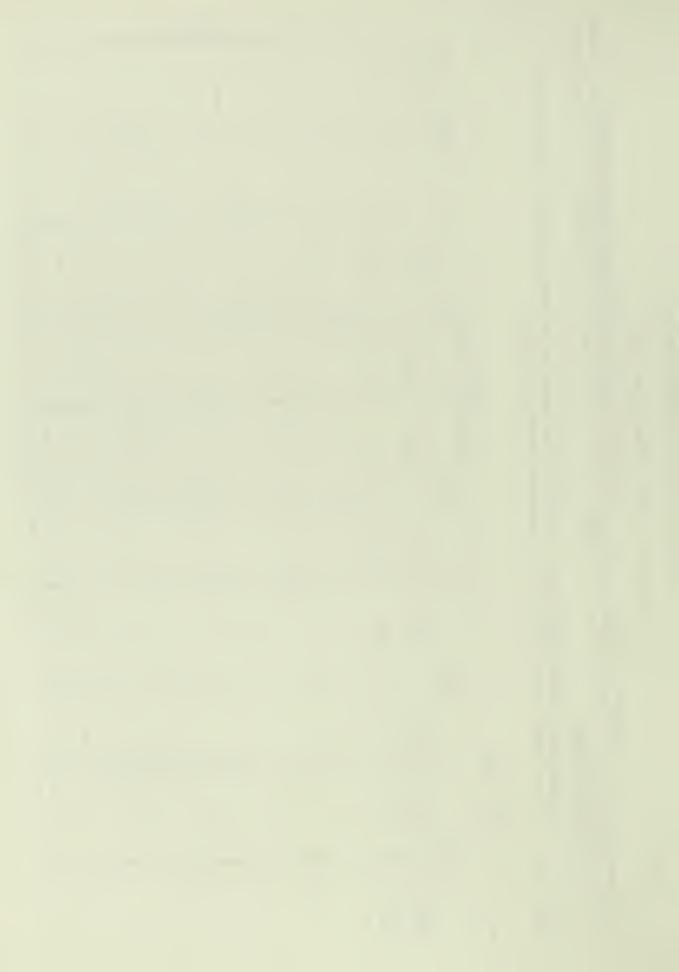
feet above mean sea level AREA OR BASIN Copper Mountain Hydro Subunit (X-8.B0) Altitude of land-surface datum 3,770 Depth of well 182.0 ft. San Bernardino Well-code number 340302N1161406.1 State number 1S/7E-27R1

Description of well: National Park Service (Willetts Well). In Quail Wash south of Joshua Tree (village) and west of

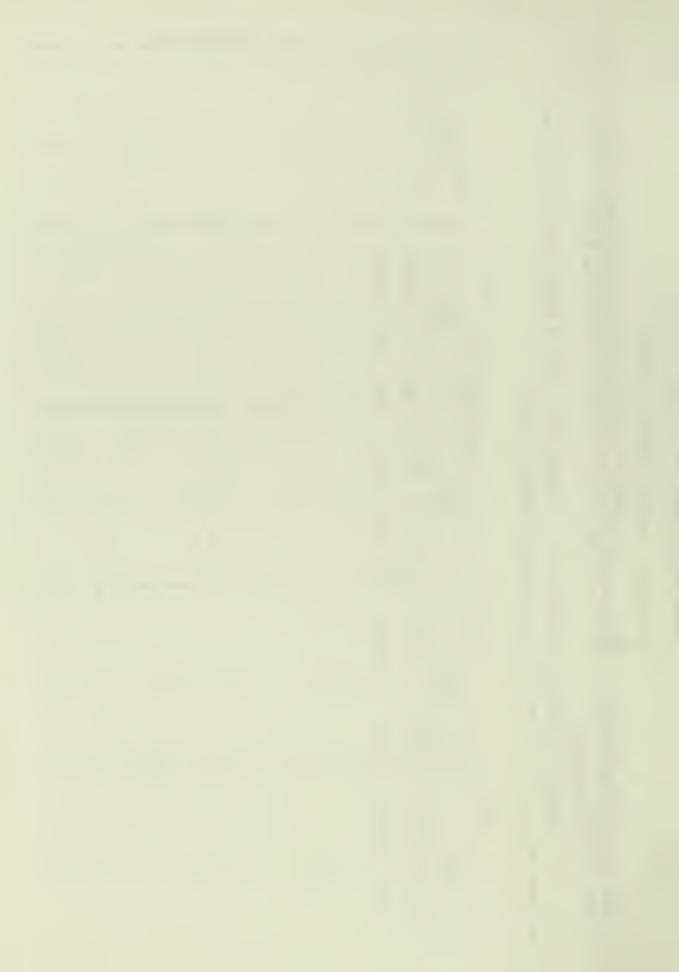
						 Sta	ite i	nu .	il ei	 	18	/7	Έ-	-27	'R1	-	S				
	. 19		19/0																		
			Date																		
	Lowest		Water level	(m)	159.4															d) of the	
• • •	. 19	ace darum	Date	Apr. 22	Oct. 24																
alluvium, diameter 5 inches.		levels are referenced to Land-Surrace darum	Water Tevel	(m)	(m)																
uvium, diam	evel	s are referenced	Date	Apr. 4	Oct. 29																
	Highest water level	All water	Water level	136.83	(m)																
lled unused	- T		Date	Mar. 15																	
alley. Dri	1958, 1961-		Water level	129.75	134.70																
Lost Horse Valley. Drilled unused well in	Fecords available	701	Da	Mar. 1	0ct. 26																



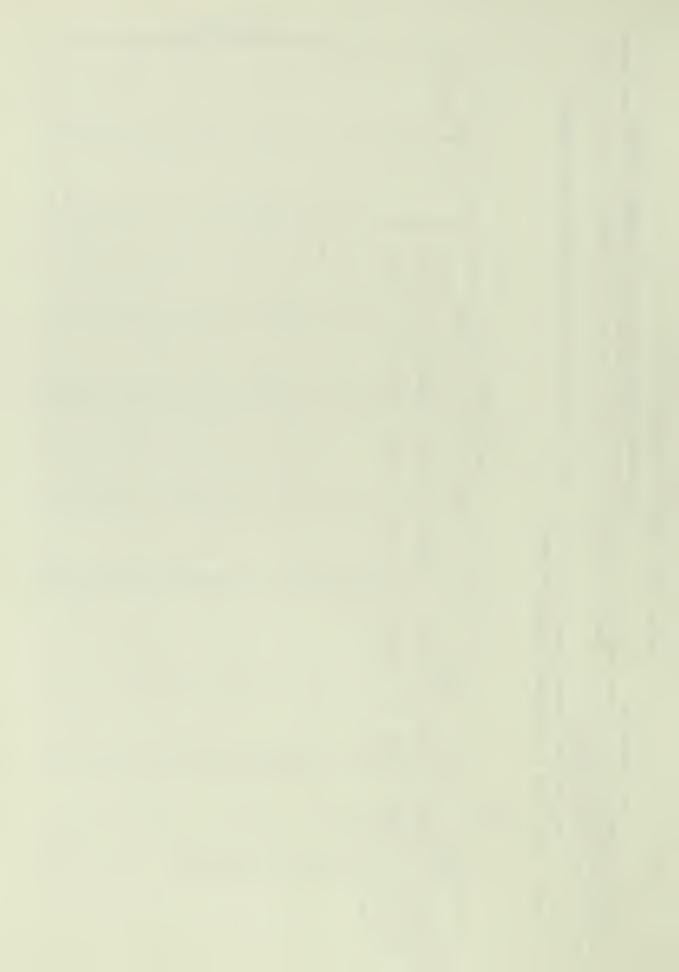
feet above mean sea level 2S/8E-3C1 S Description of well: National Park Service (Queen well). South of the Wonderland of Rocks and about 2 miles north of Water level Copper Mountain Hydro Subunit (X-8.BO) 1970 Date 4,300 Nater level 92.01 92.28 Altitude of land-surface datum Lowest 1969 Sheep Pass. Drilled domestic water-table well in residuum, diameter 8 inches. All water levels are referenced to land-surface datum 19 22 Oct. 24 Date Apr. Water love! AREA OR BASIN 94.60 92.17 1968 5 30 Depth of well 108 Date Apr. Oct. Highest water level Water level 91.99 92.06 1967 Riverside Mar. 15 25 Date Well-code number 340149N1160800.1 Oct. Records available 1961, 1965-COUNTY Water leve 93.25 2S/8E-3C1 95.74 1966 State number 26 CALIFURNIA Date Mar. Oct.



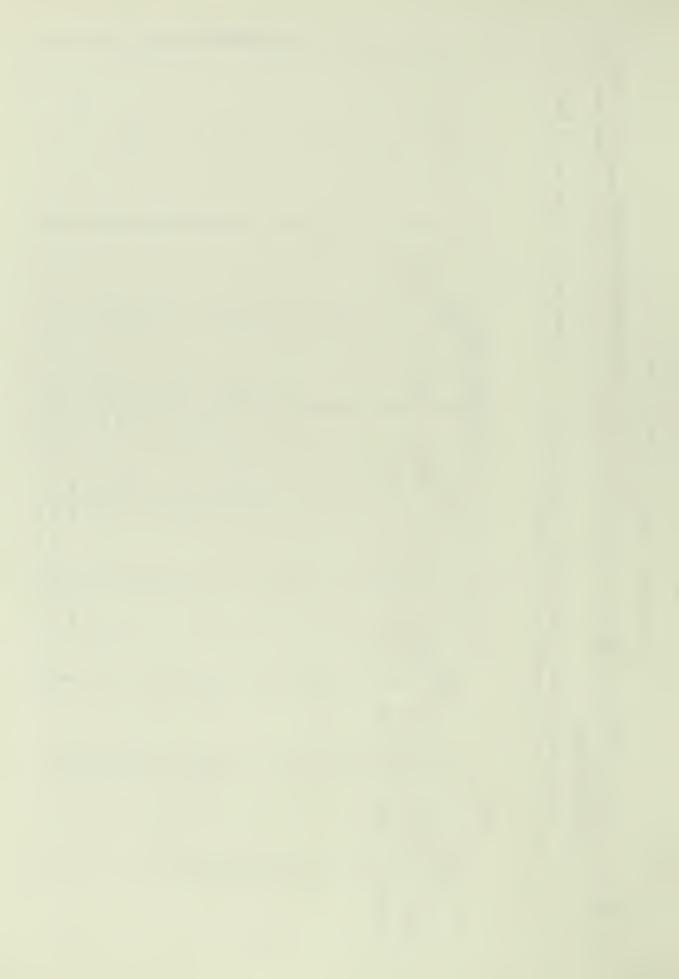
	le l									State	nur	noe	 2	s/8	E-	7K:	L	3		 		
nit (X-8.BO)	feet above mean sea level	In narrow valley west of Hidden Valley at west side of		ft		1970	Date Aster level												•			
in Hydro Subu	ace datum 4,100	Hidden Valley		Lowest		1969	Water level	216.65	216.80													
opper Mounta	Altitude of land-surface datum_	ley west of	nes.	. 19	rface datum	19	Date	Apr. 22	Oct. 24													
	ft. Alt	narrow val	diameter 8 inches.	3	10 land-surface	68	Water over	215.81	216.15													
AREA OR BASIN	7e11 290			Irvel	All water levels are referenced to	1968	Date	Apr. 4	Oct. 29													
TY Riverside AREA OR BASIN Copper Mountain Hydro Subunit	Depth of well	ce (Stokes	well in re	Highest water level	All water leve	1967	Water level	214.93	215.46													
	1031.1	Park Servi	lled unused			19	Date	Mar. 15	0ct. 25													
	State number 2S/8E-7K1 S Well-code number 340042N1161031.1	Description of well: National Park Service (Stokes No. 2).	Lost Horse Valley. Drilled unused well in residuum,	1961-		99	Water level	213.69	214.50													
CALIFORNIA	State number 2	Description of we	Lost Horse	Pro rds available		1966	Date	Mar. 1	Oct. 26													



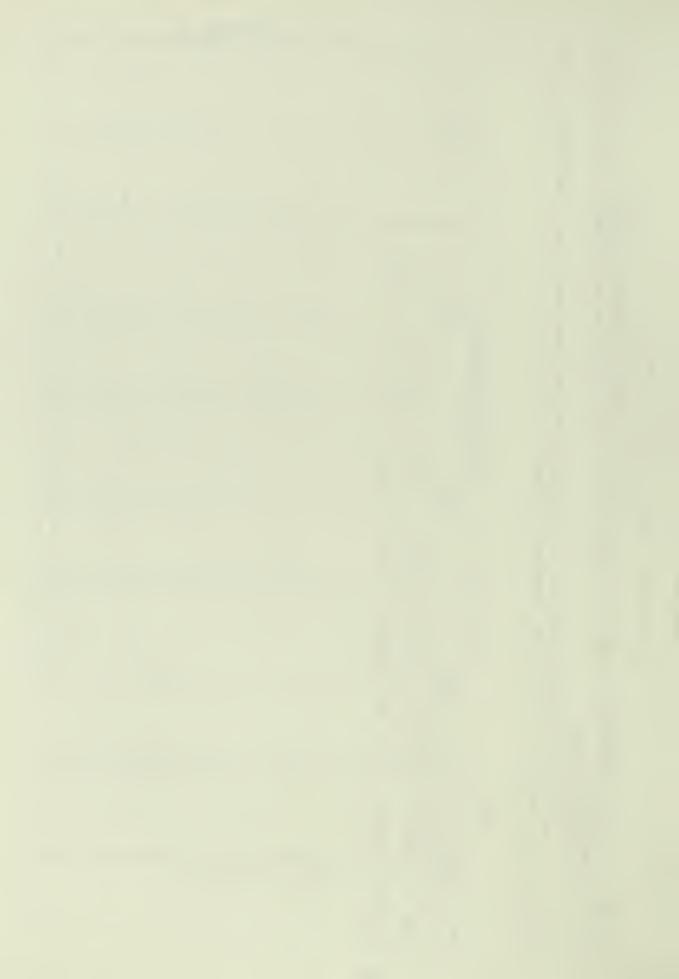
	vel									Sta	ite	nur	nbe	1	2 <u>S</u>	/8	E-	210	32	- 5	S_				_
(X-8.BO)	feet above mean sea level	kyan Campground.	ft		1970	Date Water level																			
Copper Mountain Hydro Subunit	face datum 4,480	side of Lost Horse Valley near Ryan Campground	Lowest		1969	Water level	40.74	40,53	~	~															
opper Mount	Altitude of land-surface datum_	of Lost Hor	. 19	face datum	19	Date	Apr. 22	0ct. 24																	
AREA OR BASIN C	ft. Altı	East side	٠	o land-surface	8	Water level	41.00	39.14																	
ARE	43.0	e No. 2). 8 inches.	vel	All water levels are referenced to	1968	Date	Apr. 4	Oct. 29						-											
Riverside	Depth of well	e (Lost Hors diameter 4	Highest water level	All water levels	57	Water level	39.72	b38.32																	
	0850.1	Park Servicalin residuum			1967	Date	Mar. 15	Oct. 25																	
COUNTY R	/8E-21G2 S 335903N1160850.1	Dug public supply well in residuum, diameter 48 inches.	1961-		99	Water level	38.71	36.04																	
CALIFORNIA	State number 25/8E-21G2 Well-code number 335903	Description of well: National Park Service (Lost Horse No. 2). Dug public supply well in residuum, diameter 48 inches.	Perords available_		1966	Date	Mar. 1	Oct. 26																	



	- e		ď							Stat	e nt	HT 17	e1	2	2S/	12	E-	36	Fl	 S		 	 	
	feet above mean sea level		In Pinto Basin, 1 mile east of Gold Crown		, 19	1970	Water level																	
(00:			mile eas	Š	1		Date																	
Pinto Hydro Subunit (X-17.CO)	ace datum 1,347	nto Basin, 1					Water level	401.51	(n)															
nto Hydro S	Altitude of land-surface datum_			5	land-surface datum	1969	Date.	Apr. 23																
AREA OR BASIN P1	ft. Alt	Gold Rose well				58	Water Ievel	400.61	(n)															;
ARI	777		e Holmes well, Gol well in alluvium.	-	nignest water level All water levels are referenced to	1968	Date	Apr. 5	Nov. 7															
COUNTY Riverside	Depth of w	Service ed dome	All water level	1967	Water level	400.51	400.37																	
	S		19	Date	Mar. 17	Oct. 26																		
COUNTY	2S/12E-36F1	Well-code number 335718N1154034.1	National ssion well.	1061		99	Water level	400.91	400.60															
CALIFORNIA	State number 2	Well-code number	Description of we Road at Mi		r cords available	1966	Date	Mar. 3	Oct. 28															



	vel	41						Sta	ite n	Linbe	1	3 s /	15I	<u>3-4</u>	J1	S	
	feet above mean sea level	At east end of Pinto Basin near Kaiser Steel Company's Eagle 6 inches.	10	1970	Water level												
(02.7		r Steel G	ft.		Date												
bunit (X-1	ce datum 1.0	near Kaise	Lowest	6	Water level	(a)	165.06										
Pinto Hydro Subunit (X-17.CO)	Altitude of land-surface datum 1,080,6	Pinto Basin	face datum.	1969	Бате	Apr. 23	Oct. 23										
AREA OR BASIN Pi	ft. Altıt	At east end of 16 inches.	o land-surface	89	Water level	(a)	(n)										
ARE	ell 575	~	Highest water level All water levels are referenced to	1968	Date	Apr. 8	Nov. 7										
	Depth of well	e (Kaiser N illuvium, di	Highest water level	7	Water level	c163.38	c163.78										
COUNTY Riverside	2433.1	Park Serviced well in a		1967	Date	Mar. 17	Oct. 26										
COUNTY	S/15E-4J1 S 335612N115	Description of well: National Park Service (Kaiser No. 2). Mountain wells. Drilled well in alluvium, diameter	1954-	1966	Water level	c161.95	c162.94										
CALIFORNIA	State number 3S/15E-4J1 S Well-code number 335612N1152433.1	Description of we	Pecords available	19	916	Mar. 2	Oct. 27										



4S/11E-27Q1 feet above mean sea level State numbe Water level Description of well: National Park Service (Cottonwood well). In Smoketree Wash 3½ miles north of Cottonwood Spring. Date AREA OR BASIN Pinto Hydro Subunit (X-17.CO) Altitude of land-surface datum 2,975 Water level 191.48 187.26 Lowest 1969 All water levels are referenced to land-surface datum. Apr. 23 Oct. 23 Wat . bevel 183.04 182.22 Drilled public supply well in alluvium, diameter 12 inches. ft. 2 402 Apr. Nov. Highest water level Depth of well Water Inves 180.59 181.84 1967 Mar. 17 26 COUNTY Riverside Oct. Well-code number 334712N1154856.1 Records available 1958-61, 1963-4S/11E-2701 Water Level 179.44 179.49 1966 28 State number CALIFORNIA Date Oct.

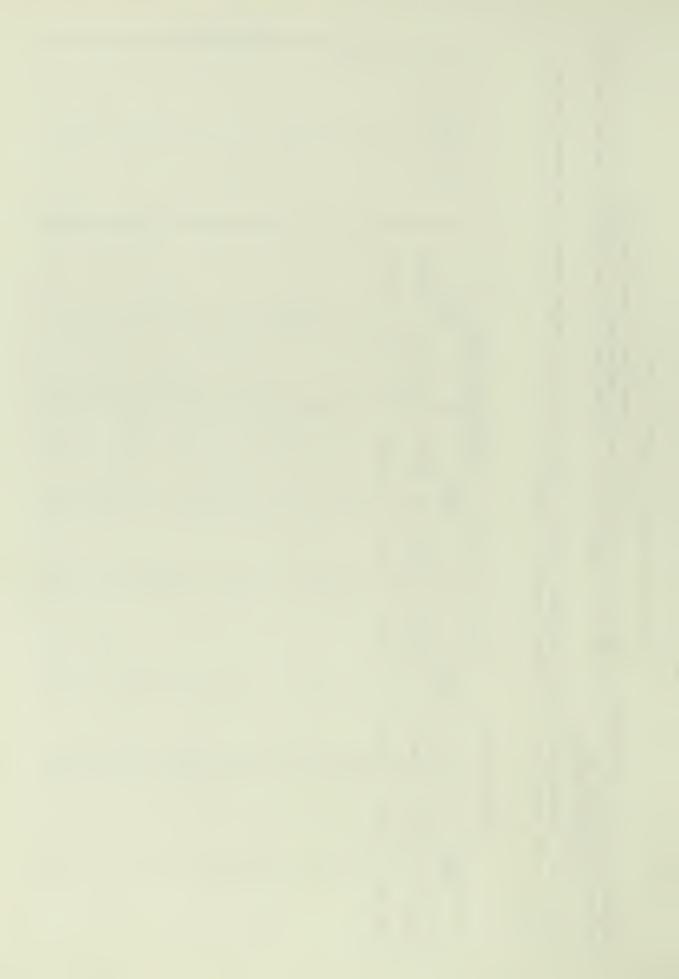
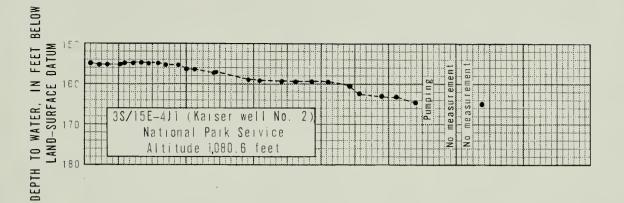


FIGURE 2.--Hydrographs of selected wells in Joshua Tree National Monument.





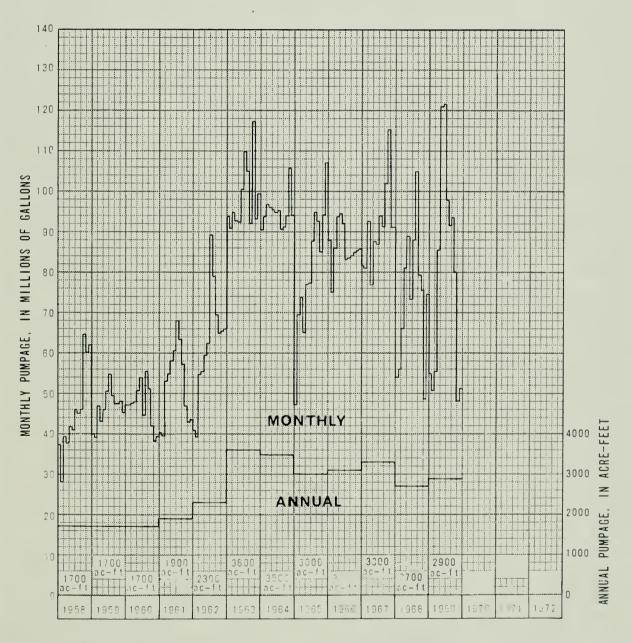


FIGURE 3.—Hydrograph of well and pumpage in eastern part of Pinto Basin.





